

THE UNIVERSITY OF WISCONSIN
COLLEGE OF AGRICULTURE

Madison 6

DEPARTMENT OF GENETICS

December 4, 1947

AIRMAIL

Dr. Warren Weaver
The Rockefeller Foundation
49 West 49th Street
New York 20, N. Y.

W.W.: you may want to meet L. during
your visit to Madison. g. m. a ? He
might be helped by a fellowship in a year or
so. mc

Dear Dr. Weaver:

Following the retirement of Professor L. J. Cole, who reached the age limit last June, we have brought to our staff Joshua Lederberg to work in the field of gene physiology, with special reference to the microorganisms. As a student with Tatum at Yale Lederberg obtained genetic evidence for sexuality in a particular strain of the colon bacillus. This significant finding opens up the possibility of using bacteria for genetic studies along more or less regular lines. Lederberg has laid plans for two specific investigations on the nature and action of the gene in bacteria, which have recently received the approval of our Administration.

The first of these studies deals with the genetic control of specificity of glycosidases of Escherichia coli (strain K12). This work is designed as a test of the theory of gene action formulated by Beadle and Tatum on the basis of their Neurospora investigations; namely, that the specificity of a single enzyme is controlled by a single gene. Lederberg is now accumulating the necessary mutants for this work, and is being given cooperation from Professor K. P. Link's laboratory in providing the special sugar derivatives needed.

The second principal investigation which Lederberg has in mind will deal with the extra-cellular transfer (transformation) of the genes in E. coli, strain C. Boivin of the Pasteur Institute claims to have paralleled with this E. coli strain the type transformations in pneumococcus reported by Griffith and Avery, MacLeod and McCarty, and others. This phenomenon is of such fundamental biological interest that additional work on it is most desirable. Lederberg hopes to start his investigations in this field within a few months.

The University is to remodel this year a laboratory in the Genetics Building as permanent quarters for research on the genetics of microorganisms. Lederberg is using temporary facilities at present. About \$8,000 has been set up to furnish and equip the new laboratory, and operating funds sufficient for the present rather limited research program are being provided this year. We hope that before the fall of 1948 reasonably adequate facilities for Lederberg's use will be available out of the funds now in hand. Operating funds beyond this year remain to be considered.

page 2--December 4, 1947

Warren Weaver

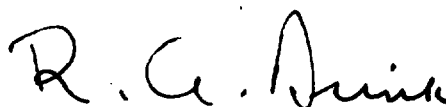
It is the policy of the Wisconsin College of Agriculture to support basic research fairly liberally within the limits of its operating funds. There is a multiplicity of calls, however, for these funds. The Administration, therefore, normally looks to sources outside the College budget for help for fundamental work of the kind which Lederberg is undertaking.

Recently Lederberg and I have been considering possible sources of support outside the University for his investigations. I told him of the timely help which The Rockefeller Foundation had provided Irwin, and Cooper and myself, in the past and suggested that inquiry might be made whether the Foundation would be interested in considering his present needs.

On learning yesterday that you were to be on the campus next week I decided to write you at once with the thought that should you desire it, an opportunity might be found during your visit to meet Lederberg and discuss this matter directly.

Lederberg is an unusually able young investigator with an extraordinary breadth of knowledge and biological interests. He is beginning to be recognized already as a spark plug in the biological research group on the campus. We are hopeful of important things from him. Our present concern is to provide him with the means necessary to carry forward a program which appears sound.

Sincerely yours,

A handwritten signature in cursive script, reading "R. A. Brink".

R. A. Brink
Professor of Genetics

RAB/s